

CREDIT OPINION

21 November 2016

New Issue

Rate this Research >>

Contacts

Roger S Brown 214-979-6840
 VP-Senior Analyst/
 Manager
 roger.brown@moodys.com

Gera M. McGuire 214-979-6850
 VP-Sr Credit Officer/
 Mgr
 gera.mcguire@moodys.com

Metropolitan St. Louis Sewer District

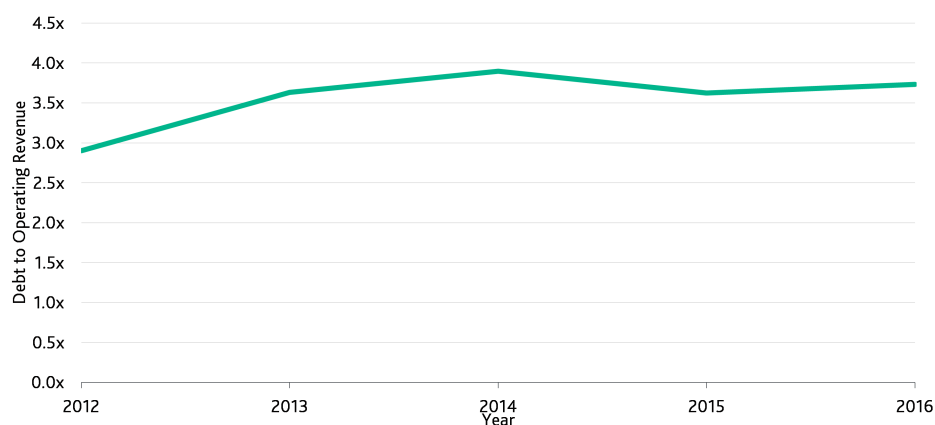
New Issue: Moody's assigns Aa1 to Metropolitan St. Louis Sewer District, MO's \$150M Wastewater Rev. Bonds, Series 2016C

Summary Rating Rationale

Moody's Investors Service assigned a Aa1 rating to Metropolitan St. Louis Sewer District, MO's \$150 million Wastewater System Improvement and Refunding Revenue Bonds, Series 2016C. Concurrently, Moody's affirmed the Aa1 rating on the district's \$860 million of outstanding parity debt. The ratings also take into consideration \$344 million in outstanding subordinate lien state revolving fund bonds that are not rated by Moody's. The outlook is stable.

The Aa1 rating reflects the district's stable financial performance, the result of annual rate increases, prudent management practices and conservative budgeting. The rating also reflects management's ability to successfully manage through the initial stages of a \$4.7 billion (in 2010 dollars) consent decree. The decree primarily requires the significant reduction of combined and sanitary sewer overflows. The rating is also based on the district's large and diverse service area that encompasses the City of St. Louis (A2 negative) and St. Louis County (Aaa stable), an increasing debt profile with sound debt service coverage, and satisfactory legal covenants and no debt service reserve with the current issuance.

Exhibit 1



Source: Metropolitan St. Louis Sewer District

Credit Strengths

- » Established annual rate increases
- » Stable financial metrics and debt service coverage
- » Stable and large customer base and service area
- » Prudent fiscal management and conservative budgeting

Credit Challenges

- » Significantly high debt profile
- » Plans for additional borrowing related to consent decree
- » Current offering does not benefit from debt service reserve fund

Rating Outlook

The stable outlook reflects the district's large service area encompassing the St. Louis metro area, and continued strong financial performance due in large part to multiyear adopted annual rate increases and prudent management practices.

Factors that Could Lead to an Upgrade

- » Strong management of the significant consent decree driven capital program.
- » Rate management to incorporate capital needs while maintaining strong debt service coverage.
- » Trend of strong balance sheet performance and improvement of liquidity while supporting the capital plan with equity financings to manage the debt burden.

Factors that Could Lead to a Downgrade

- » Narrowed liquidity or debt service coverage
- » Inability to successfully manage consent decree
- » Significant decline in system demand

This publication does not announce a credit rating action. For any credit ratings referenced in this publication, please see the ratings tab on the issuer/entity page on www.moody's.com for the most updated credit rating action information and rating history.

Key Indicators

Exhibit 2

Metropolitan St. Louis Sewer District					
System Characteristics					
Asset Condition (Net Fixed Assets / Annual Depreciation)	35 years				
System Size - O&M (in \$000s)	171,318				
Service Area Wealth: MFI % of US median	117.4%				
Legal Provisions					
Rate Covenant (x)	1.15				
Debt Service Reserve Requirement	DSRF funded at less than 3-prong test OR springing DSRF				
Financial Strength					
	2012	2013	2014	2015	2016
Operating Revenue (\$000)	226,940	241,555	267,092	291,392	322,358
O&M (\$000)	135,232	146,372	153,222	163,288	171,318
Long-Term Debt (\$000)	658,396	877,067	1,040,821	1,056,509	1,203,367
Annual Debt Service Coverage (x)	2.35	1.91	2.56	2.07	2.05
Cash on Hand	309 days	372 days	449 days	297 days	390 days
Debt to Operating Revenues (x)	2.9x	3.6x	3.9x	3.6x	3.7x

*Financials are inclusive of the wastewater segment only.

Source: Moody's Investor's Service, Metropolitan St. Louis Sewer District CAFRs

Detailed Rating Considerations

Service Area and System Characteristics: Large Service Area and Diverse Customer Base

The district's large customer base and service area will remain stable in the near term. The district owns and operates the system, which consists of sanitary stormwater and combined stormwater collection sewers, pumping stations and wastewater treatment facilities. The service area includes 525 square miles, the City of St. Louis represents approximately 20% of the customer base while the remaining 80% within St. Louis County. The district encompasses five watershed areas and serves a population of roughly 1.3 million. The district entered into a significant \$4.7 billion (2010 dollars) consent decree in April of 2012 and will take 23 years to complete. Capital expenditures of approximately \$1.5 billion are projected during 2017-2020 to address system overflows, approximately doubling capital expenditure levels from 2013-2016.

The district's customer base is large and relatively diverse (residential at 73% of revenues, commercial and industrial at 27%), which are both projected to remain steady over the medium term. The district provides secondary treatment for an average daily flow of more than 335 million gallons per day (MGD), a treatment capacity of 538 million MGD, and operates seven treatment facilities. The district serves roughly 420,000 wastewater accounts. The top ten largest customers account for a modest 5.35% of total user charges in 2016. Anheuser-Busch InBev SA/NV (A3 stable) is the district's largest customer representing 1.80% of total user charges. Other large customers include Washington University, MO (Aaa stable), Boeing Company (The) (A2 stable) and the City of St. Louis.

Debt Service Coverage and Liquidity: Financial Performance and Position Bolstered by Adopted Rate Increases

The district's financial performance remains stable, reinforced by conservative projections, close monitoring of expenditures and established multi-year rate increases. Rate increases have fostered healthy revenue growth in recent years. Operating revenues in fiscal 2016 totaled \$320 million; net revenues were \$151 million which provided an average 2.05 times coverage of total debt service and 3.26 times coverage of senior lien debt service. Net revenues provide 1.43 times coverage of projected maximum annual debt service (MADS) of \$106 million in 2022.

The board of trustees, via recommendation from the rate commission, has approved a rate structure that increases rates on average 10.4% annually from 2016 to 2020. The rate structure includes \$900 million in authorization of new debt by 76% of voters in April 2016 for future capital projects. The board had also approved a more aggressive rate structure in the event that bond authorization was

not approved by voters. Adopted multiyear rate increases are a favorable credit trend in that the revenue growth is expected; all else equal, to maintain strong financial management through ongoing use of reserves and capital investment.

LIQUIDITY

Liquidity remains strong. Unrestricted cash and investments totaled \$182.9 million at fiscal year-end 2016, or a healthy 390 days cash. Officials anticipate building liquidity to 524 days in fiscal 2017, but utilizing some of the cash to equity fund some capital investments. Over the medium term (2017-2020), officials anticipate drawing down liquidity to a low point of 376 days to facilitate pay-go funding of capital expenditures. Officials plan to equity fund approximately 28% of the capital expenditures for the next four years ending 2020. Given current financial metrics and established multi-year rate increases, healthy liquidity will be maintained over the near-term.

Including the unrestricted long-term investments, unrestricted cash and investments totaled \$339.9 million or 724 days cash in fiscal 2016. Moody's notes the district's long-term investment portfolio consists mainly of treasury notes. The average days to maturity of the portfolio is 588 and average of 1.6 years in duration.

Debt and Legal Covenants: Debt Profile Moderated but Expected to Grow as District Manages Consent Decree

Post-sale and inclusive of the anticipated December 2016 issuance of \$95.5 million 2016A/B SRF Bonds, the district will have a significant \$1.45 billion in outstanding debt. Debt to operating revenue has increased over the past several years to 4.4 times (post sale and inclusive of 2016A/B SRF Bonds) given the significant recent debt issuance associated with the consent decree. Over the medium term to 2020, debt is expected to increase to \$2.05 billion with debt to revenues increasing to 4.7 times. The debt profile will be managed closely to ensure net revenues of the system remain strong to meet debt service requirements and that borrowing is strategic in terms of the overall capital improvement plans, the consent decree, and the life of the assets that bond proceeds will fund.

DEBT STRUCTURE

The district's debt structure is relatively straight forward. The post-sale payout schedule indicates total annual debt service requirements from \$101 million to \$106 million through 2027 before slowly declining to full maturity in 2046. MADS is projected at \$106 million in 2022. Payout of debt is below average with 33% of principal retired over the next 10 years.

DEBT-RELATED DERIVATIVES

All outstanding debt is fixed rate, and the district is not a party to any interest rate swap agreements.

PENSIONS AND OPEB

The district offers a defined benefit plan providing retirement, death and disability benefits to full-time employees commencing service prior to December 31, 2010. The plan has 1,531 total members, down 2.9% over the past two years. The plan is not accepting new entrants, a credit positive. Pension contributions totaled \$10.1 million in fiscal 2016. Moody's notes the district favorably changed its pension plan to a defined contribution plan effective in 2011.

Over time the district's OPEB liability has been reduced by changes in benefits offered to existing and future retirees. The district continues to follow a pay-go approach to its OPEB costs.

Management and Governance

An experienced management staff is a key credit factor for the district. The district is governed by a six-member board of trustees, of which three members are each appointed by the Mayor of St. Louis and the St. Louis County Executive. A rate commission, inclusive of vested parties associated with the district and their services, reviews proposed changes to rates and charges and makes recommendations to trustees.

Legal Security

The legal provisions outlined in the master and supplemental bond ordinances provide satisfactory security for bondholders. Debt service on the current bonds is secured by a senior lien on the net revenues of the wastewater system and is on parity with the district's previously issued senior lien wastewater revenue bonds. Pledged revenues explicitly exclude storm water system revenues. The rate covenant calls for net revenues to provide at least 1.25 times annual debt service coverage on all senior lien bonds and 1.15 times debt service coverage on all debt, including subordinate lien debt which consists of state revolving fund loans.

An additional bonds test calls for net revenues to equal 1.25 times MADS on all senior lien debt and 1.15 times MADS on all debt for either 12 consecutive months during the most recent 18 month period or in the financial forecasts for the next three fiscal years. The

Series 2016C and 2015B Bonds do not have debt service reserve. The debt service reserve requirement on other issued parity senior lien bonds is the lesser of 10% of the principal on the senior lien bonds; MADS on senior lien debt; or 1.25 times average annual debt service on senior lien debt. The debt service reserve is cash funded.

Use of Proceeds

Proceeds from the Series 2016C Bonds will be used to complete upgrade and rehabilitation projects throughout the district which are in line with the district's long-term capital improvement plan and consent decree and partially refund Series 2011B, 2012A and 2013B for economic savings.

Obligor Profile

The district owns and operates the system, which consists of sanitary, stormwater and combined collection sewers, pumping stations, and wastewater treatment facilities. The service area includes 525 square miles, the City of St. Louis, and 90% of St. Louis County. The district encompasses five watershed areas and serves a population of roughly 1.3 million.

Methodology

The principal methodology used in this rating was US Municipal Utility Revenue Debt published in December 2014. Please see the Rating Methodologies page on www.moody.com for a copy of this methodology.

Ratings

Exhibit 3

Metropolitan St. Louis Sewer District, MO

Issue	Rating
Wastewater System Improvement and Refunding Revenue Bonds Series 2016C	Aa1
Rating Type	Underlying LT
Sale Amount	\$150,000,000
Expected Sale Date	12/19/2016
Rating Description	Revenue: Government Enterprise

Source: Moody's Investors Service

© 2016 Moody's Corporation, Moody's Investors Service, Inc., Moody's Analytics, Inc. and/or their licensors and affiliates (collectively, "MOODY'S"). All rights reserved.

CREDIT RATINGS ISSUED BY MOODY'S INVESTORS SERVICE, INC. AND ITS RATINGS AFFILIATES ("MIS") ARE MOODY'S CURRENT OPINIONS OF THE RELATIVE FUTURE CREDIT RISK OF ENTITIES, CREDIT COMMITMENTS, OR DEBT OR DEBT-LIKE SECURITIES, AND CREDIT RATINGS AND RESEARCH PUBLICATIONS PUBLISHED BY MOODY'S ("MOODY'S PUBLICATIONS") MAY INCLUDE MOODY'S CURRENT OPINIONS OF THE RELATIVE FUTURE CREDIT RISK OF ENTITIES, CREDIT COMMITMENTS, OR DEBT OR DEBT-LIKE SECURITIES. MOODY'S DEFINES CREDIT RISK AS THE RISK THAT AN ENTITY MAY NOT MEET ITS CONTRACTUAL, FINANCIAL OBLIGATIONS AS THEY COME DUE AND ANY ESTIMATED FINANCIAL LOSS IN THE EVENT OF DEFAULT. CREDIT RATINGS DO NOT ADDRESS ANY OTHER RISK, INCLUDING BUT NOT LIMITED TO: LIQUIDITY RISK, MARKET VALUE RISK, OR PRICE VOLATILITY. CREDIT RATINGS AND MOODY'S OPINIONS INCLUDED IN MOODY'S PUBLICATIONS ARE NOT STATEMENTS OF CURRENT OR HISTORICAL FACT. MOODY'S PUBLICATIONS MAY ALSO INCLUDE QUANTITATIVE MODEL-BASED ESTIMATES OF CREDIT RISK AND RELATED OPINIONS OR COMMENTARY PUBLISHED BY MOODY'S ANALYTICS, INC. CREDIT RATINGS AND MOODY'S PUBLICATIONS DO NOT CONSTITUTE OR PROVIDE INVESTMENT OR FINANCIAL ADVICE, AND CREDIT RATINGS AND MOODY'S PUBLICATIONS ARE NOT AND DO NOT PROVIDE RECOMMENDATIONS TO PURCHASE, SELL, OR HOLD PARTICULAR SECURITIES. NEITHER CREDIT RATINGS NOR MOODY'S PUBLICATIONS COMMENT ON THE SUITABILITY OF AN INVESTMENT FOR ANY PARTICULAR INVESTOR. MOODY'S ISSUES ITS CREDIT RATINGS AND PUBLISHES MOODY'S PUBLICATIONS WITH THE EXPECTATION AND UNDERSTANDING THAT EACH INVESTOR WILL, WITH DUE CARE, MAKE ITS OWN STUDY AND EVALUATION OF EACH SECURITY THAT IS UNDER CONSIDERATION FOR PURCHASE, HOLDING, OR SALE.

MOODY'S CREDIT RATINGS AND MOODY'S PUBLICATIONS ARE NOT INTENDED FOR USE BY RETAIL INVESTORS AND IT WOULD BE RECKLESS AND INAPPROPRIATE FOR RETAIL INVESTORS TO USE MOODY'S CREDIT RATINGS OR MOODY'S PUBLICATIONS WHEN MAKING AN INVESTMENT DECISION. IF IN DOUBT YOU SHOULD CONTACT YOUR FINANCIAL OR OTHER PROFESSIONAL ADVISER. ALL INFORMATION CONTAINED HEREIN IS PROTECTED BY LAW, INCLUDING BUT NOT LIMITED TO, COPYRIGHT LAW, AND NONE OF SUCH INFORMATION MAY BE COPIED OR OTHERWISE REPRODUCED, REPACKAGED, FURTHER TRANSMITTED, TRANSFERRED, DISSEMINATED, REDISTRIBUTED OR RESOLD, OR STORED FOR SUBSEQUENT USE FOR ANY SUCH PURPOSE, IN WHOLE OR IN PART, IN ANY FORM OR MANNER OR BY ANY MEANS WHATSOEVER, BY ANY PERSON WITHOUT MOODY'S PRIOR WRITTEN CONSENT.

All information contained herein is obtained by MOODY'S from sources believed by it to be accurate and reliable. Because of the possibility of human or mechanical error as well as other factors, however, all information contained herein is provided "AS IS" without warranty of any kind. MOODY'S adopts all necessary measures so that the information it uses in assigning a credit rating is of sufficient quality and from sources MOODY'S considers to be reliable including, when appropriate, independent third-party sources. However, MOODY'S is not an auditor and cannot in every instance independently verify or validate information received in the rating process or in preparing the Moody's Publications.

To the extent permitted by law, MOODY'S and its directors, officers, employees, agents, representatives, licensors and suppliers disclaim liability to any person or entity for any indirect, special, consequential, or incidental losses or damages whatsoever arising from or in connection with the information contained herein or the use of or inability to use any such information, even if MOODY'S or any of its directors, officers, employees, agents, representatives, licensors or suppliers is advised in advance of the possibility of such losses or damages, including but not limited to: (a) any loss of present or prospective profits or (b) any loss or damage arising where the relevant financial instrument is not the subject of a particular credit rating assigned by MOODY'S.

To the extent permitted by law, MOODY'S and its directors, officers, employees, agents, representatives, licensors and suppliers disclaim liability for any direct or compensatory losses or damages caused to any person or entity, including but not limited to by any negligence (but excluding fraud, willful misconduct or any other type of liability that, for the avoidance of doubt, by law cannot be excluded) on the part of, or any contingency within or beyond the control of, MOODY'S or any of its directors, officers, employees, agents, representatives, licensors or suppliers, arising from or in connection with the information contained herein or the use of or inability to use any such information.

NO WARRANTY, EXPRESS OR IMPLIED, AS TO THE ACCURACY, TIMELINESS, COMPLETENESS, MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE OF ANY SUCH RATING OR OTHER OPINION OR INFORMATION IS GIVEN OR MADE BY MOODY'S IN ANY FORM OR MANNER WHATSOEVER.

Moody's Investors Service, Inc., a wholly-owned credit rating agency subsidiary of Moody's Corporation ("MCO"), hereby discloses that most issuers of debt securities (including corporate and municipal bonds, debentures, notes and commercial paper) and preferred stock rated by Moody's Investors Service, Inc. have, prior to assignment of any rating, agreed to pay to Moody's Investors Service, Inc. for appraisal and rating services rendered by it fees ranging from \$1,500 to approximately \$2,500,000. MCO and MIS also maintain policies and procedures to address the independence of MIS's ratings and rating processes. Information regarding certain affiliations that may exist between directors of MCO and rated entities, and between entities who hold ratings from MIS and have also publicly reported to the SEC an ownership interest in MCO of more than 5%, is posted annually at www.moody.com under the heading "Investor Relations — Corporate Governance — Director and Shareholder Affiliation Policy."

Additional terms for Australia only: Any publication into Australia of this document is pursuant to the Australian Financial Services License of MOODY'S affiliate, Moody's Investors Service Pty Limited ABN 61 003 399 657 AFSL 336969 and/or Moody's Analytics Australia Pty Ltd ABN 94 105 136 972 AFSL 383569 (as applicable). This document is intended to be provided only to "wholesale clients" within the meaning of section 761G of the Corporations Act 2001. By continuing to access this document from within Australia, you represent to MOODY'S that you are, or are accessing the document as a representative of, a "wholesale client" and that neither you nor the entity you represent will directly or indirectly disseminate this document or its contents to "retail clients" within the meaning of section 761G of the Corporations Act 2001. MOODY'S credit rating is an opinion as to the creditworthiness of a debt obligation of the issuer, not on the equity securities of the issuer or any form of security that is available to retail investors. It would be reckless and inappropriate for retail investors to use MOODY'S credit ratings or publications when making an investment decision. If in doubt you should contact your financial or other professional adviser.

Additional terms for Japan only: Moody's Japan K.K. ("MJKK") is a wholly-owned credit rating agency subsidiary of Moody's Group Japan G.K., which is wholly-owned by Moody's Overseas Holdings Inc., a wholly-owned subsidiary of MCO. Moody's SF Japan K.K. ("MSFJ") is a wholly-owned credit rating agency subsidiary of MJKK. MSFJ is not a Nationally Recognized Statistical Rating Organization ("NRSRO"). Therefore, credit ratings assigned by MSFJ are Non-NRSRO Credit Ratings. Non-NRSRO Credit Ratings are assigned by an entity that is not a NRSRO and, consequently, the rated obligation will not qualify for certain types of treatment under U.S. laws. MJKK and MSFJ are credit rating agencies registered with the Japan Financial Services Agency and their registration numbers are FSA Commissioner (Ratings) No. 2 and 3 respectively.

MJKK or MSFJ (as applicable) hereby disclose that most issuers of debt securities (including corporate and municipal bonds, debentures, notes and commercial paper) and preferred stock rated by MJKK or MSFJ (as applicable) have, prior to assignment of any rating, agreed to pay to MJKK or MSFJ (as applicable) for appraisal and rating services rendered by it fees ranging from JPY200,000 to approximately JPY350,000,000.

MJKK and MSFJ also maintain policies and procedures to address Japanese regulatory requirements.

REPORT NUMBER

1050245

Contacts

Roger S Brown
*VP-Senior Analyst/
Manager*
roger.brown@moody.com

214-979-6840

Gera M. McGuire
VP-Sr Credit Officer/Mgr
gera.mcguire@moody.com

214-979-6850

CLIENT SERVICES

Americas	1-212-553-1653
Asia Pacific	852-3551-3077
Japan	81-3-5408-4100
EMEA	44-20-7772-5454